



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,379	11/26/2003	Kwang-Hoon Jeon	Q77953	6002
23373	7590	05/19/2008	EXAMINER	
SUGHRUE MION, PLLC			NGUYEN, KIMNHUNG T	
2100 PENNSYLVANIA AVENUE, N.W.			ART UNIT	PAPER NUMBER
SUITE 800			2629	
WASHINGTON, DC 20037				
MAIL DATE		DELIVERY MODE		
05/19/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/721,379	<b>Applicant(s)</b> JEON, KWANG-HOON
	<b>Examiner</b> KIMNHUNG NGUYEN	<b>Art Unit</b> 2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 February 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 6 is/are rejected.
- 7) Claim(s) 2-5 and 7-9 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-166/08)  
 Paper No(s)/Mail Date 12/10/07
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This application has been examined. The claims 1-9 are pending. The examination results are as following.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1, lines 7-8, “a luminance control means for comparing changes in adjacent lines of the image signal outputted from the scaler” is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

Claim 6, lines 6-7, “comparing changes in adjacent lines of the image signal outputted from the scaler” is not supported in the specification. See MPEP 2173.05(i), Negative Limitations.

The specification does mention “a luminance control means for comparing line by line changes of the image signal outputted from the scaler” on page 7, lines 14-16, or “Preferably, the luminance change step includes steps of comparing the image signal from the scaler line by line” on page 9, lines 7-8. However, the specification does not disclose that “a luminance

control means for comparing changes in adjacent lines of the image signal outputted from the scaler" as claims 1 and 6.

For examining the claims on the merit, Examiner will consider the claim languages without the limitation "a luminance control means for comparing changes in adjacent lines of the image signal outputted from the scaler".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2003/0035065) in view of Ito (US 2003/0156128).

As to claim 1, Kim discloses in fig. 1, an image display device, the device comprising: display panel (LCD see 0033); a scaler (207) for converting an input image signal to fit into a resolution of the panel (see 0033); an image signal from the scaler (207); a luminance control means (104) for comparing the high and low level (see comparator 104 for comparing the high and low level, see 0029) changes of the image signal outputted from the scalar, the image signal outputted from the scaler according to a result of the comparison (see 0029). However, Jun does not disclose a panel provided with address electrodes and data electrodes, and the luminance control means for comparing line by line changes, and changing the number of operations of the address driver. Ito discloses in fig. 1, an active matrix display comprising a panel provided with address electrodes (scanning lines 112 extending in the X (row)) and data electrodes (data lines

114 extending in the Y (column)), (see 0076), therefore, they should have an inherent line by line changes, and changing the number of operations of the address driver based on the changed luminance of the image signal outputted from the scaler (see 0077).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the active matrix display comprising a panel provided with address electrodes and data electrodes and changing the number of operations of the address driver as taught by Ito into the display system of Kim comprising the luminance control means and the comparator for producing the claimed invention because this would provide for convenience of a 240 rows X320 column matrix type display device having total of 240 scanning lines 112 and a total of 320 data lines 114 is described (see 0076).

As to claim 6 is rejected as the same as claim 1.

***Allowable Subject Matter***

6. Claims 2-5 and 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
None of the cited art teaches or suggests that wherein the luminance control means includes a line delay unit for delaying the image signal outputted from the scaler by predetermined period of time; a comparator for comparing luminance of the pixels for the image signals outputted from the line delay unit and the scaler; a counter for counting a number of luminance differences among the pixels compared in the comparator; and a luminance controller for controlling the scaler in response to a results of the counting of the counter and changing the luminance of the

image signal outputted from the scaler as claim 2; or the image display device further comprising a pixel pattern detector for detecting an on and off pattern of data of individual pixels constituting the image signal outputted to each line, and applying the detected pattern to the luminance control means in order for the luminance control means to change the luminance of the image signal outputted from the scaler as claim 5; or wherein the luminance change step includes steps of comparing the image signal outputted from the scaler line by line, and counting a number of luminance changes among pixels constituting the lines; and changing the luminance of the image signal outputted from the scaler according to the number of luminance changes counted as claim 8.

*Response To Arguments*

7. Applicant's arguments filed 2/14/08 have been fully considered but they are not persuasive.

Applicant argues that Kim clearly fails to teach or suggest the "comparing changes in adjacent lines". However, this limitation is not supported in the specification, see rejection 112 above. For this reasons, the rejection is maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMNHUNG NGUYEN whose telephone number is (571)272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kimnhung Nguyen/  
Examiner, Art Unit 2629  
May 10, 2008

/Richard Hjerpe/

Application/Control Number: 10/721,379

Art Unit: 2629

Page 7

Supervisory Patent Examiner, Art Unit 2629